

**REMARKS**

Claims 1-9 are pending in this application. By this Amendment, the Abstract and claims 1 and 3 are amended. Support for these amendments can be found, at least, in pages 80-82 of Applicants' Specification. No new matter is added.

As a preliminary matter, the Office Action Summary page indicates acknowledgement of receipt of all copies of the certified copies of the priority documents from the International Bureau. However, page 2 of the Office Action indicates that Applicants have not filed a certified copy of Japanese Application No. 2004-074874 as required by 35 U.S.C. §119(b). As the copies have been received from the International Bureau (as acknowledged by the Office Action), Applicants respectfully submit that it is not necessary to submit certified copies of Japanese Application No. 2004-074874.

The Office Action objects to the Abstract for an informality. The substitute Abstract does not contain the informality. Accordingly, Applicants respectfully request withdrawal of the objection to the Abstract.

The Office Action rejects claims 1-9 under 35 U.S.C. 103(a) over Ueno et al. "Development of Optically Controlled Optical Switch," Light Alliance, November 1, 2003, Vol. 14, No. 11, pp. 26-29, ("Ueno") in view of U.S. Patent No. 7,461,292 to Barga et al. ("Barga"), JP 05-219540 A to Kaneko, and/or U.S. Patent No. 5,659,351 to Huber. Applicants respectfully traverse this rejection.

Claims 1 and 3, as amended, recite, "one or more thermal lens forming devices for causing the converged signal light beam to exit at an angle of divergence in response to the presence or absence of irradiation of the one specific wavelength of the control light beam, by using a thermal lens containing the light absorbing layer films and based on a distribution of refractive index produced reversibly caused by temperature increase generated in an area of the light absorbing layer film that has absorbed the one specific wavelength of the control

light beam and in the periphery thereof, wherein when the one specific wavelength of the control light beam is irradiated and focused at a first portion of the thermal lens, the angle of divergence of the signal beam is greater than the angle of divergence of the signal beam when the one specific wavelength is absent, and when the one specific wavelength of the control light beam is irradiated and focused at a second portion of the thermal lens, the angle of divergence of the signal beam is smaller than the angle of divergence of the signal beam when the one specific wavelength is absent." Ueno does not disclose or suggest these features.

Using the rejection of claim 1 for illustrative purposes, Ueno discloses an optical path switching apparatus where the signal beam is diverged at a greater angle of divergence in the presence of a control light than the angle of divergence in the absence of the control light. See Ueno Figs. 3(a) and 3(b), where Fig. 3(b) shows increased angle of divergence, "so that signal light is reflected when there is control light." (English Translation of Ueno, 1<sup>st</sup> paragraph). As such, Ueno does not disclose any dependency of the thermal lens upon the focus point of the control light, nor how to achieve a greater angle or smaller angle of divergence by placing the focus point of the control light on a different portions of the thermal lens.

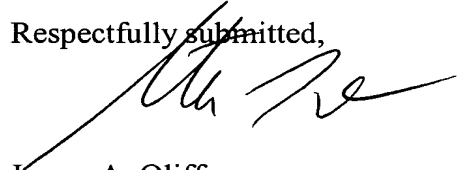
By contrast, claim 1 recites, "wherein when the one specific wavelength of the control light beam is irradiated and focused at a first portion of the thermal lens, the angle of divergence of the signal beam is greater than the angle of divergence of the signal beam when the one specific wavelength is absent, and when the one specific wavelength of the control light beam is irradiated and focused at a second portion of the thermal lens, the angle of divergence of the signal beam is smaller than the angle of divergence of the signal beam when the one specific wavelength is absent." Ueno does not disclose or suggest this feature of claim 1, nor does it disclose or suggest the above-mentioned features of claim 3.

Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1 and 3, and claims 2 and 4-9 depending therefrom, under 35 U.S.C. §103(a).

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

  
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JAO:SQP/tqs

Attachment:  
Substitute Abstract

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